

How to setup DFS on Windows Server 2019

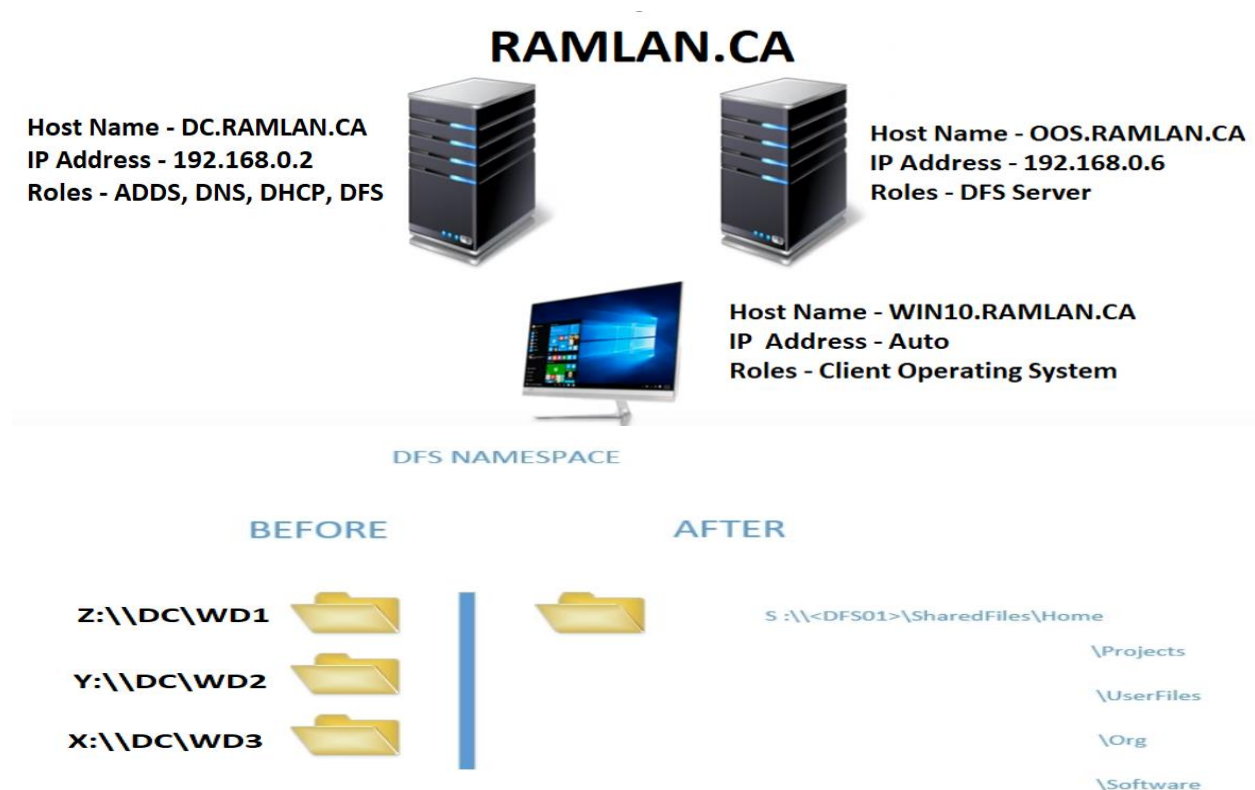
In this post, I will show you how to install and configure DFS (Distributed File System) on Windows Server 2019.

Microsoft introduced DFS as an add-on to Windows NT 4.0, and DFS has been included as a free subsystem in all versions of Windows since Windows 2000. DFS consists of a server component, included in all versions of Windows Server, and a client component, included in all versions of Windows.

DFS works with the Server Message Block (SMB) protocol, sometimes referred to as Windows networking. The SMB protocol is also commonly referred to as the Common Internet File System (CIFS). Microsoft's DFS does not work with non-SMB file networking protocols such as NFS or HDFS.

With DFS, the storage administrator creates a hierarchical namespace of links that point to his company's file shares. These shares can be hosted by any SMB-compatible device, including Windows Servers, network-attached storage devices from numerous vendors, and even Samba shares. The organization of the DFS namespace can be whatever makes sense for the company. For example, shares can be grouped by business unit, by geographic location, or both. A well-designed DFS namespace makes it much easier for users to find shares in the company's networked infrastructure.

DFS stands for Distributed File System, and it provides the ability to consolidate multiple shares on different servers into a common namespace. Whether or not there are multiple locations providing easy access to that data is something that we and IT are charged with. If we can provide easy access, one that consolidates the different locations where data can exist under a single store in a single path, that makes things a lot easier for our users, which in turn makes it easier for us as admins. It is attempting to resolve both of these situations that is the reason why DFS exist and indeed has existed for a number of OS versions.



Well, imagine you were to move the software data or any other share to a new file server. You're going to have to update all the user drive mappings to redirect them to the new server share. Now this might be a simple case of updating a logon script, but what about all those users that have mapped it manually. You're going to have to let them know that you've made this change and then you'll have to go through the process of fixing it, and explain to them why this IT change broke their share access. If you take a look at the right side, DFS will allow us to simplify this by presenting a common namespace to the users, whilst in the background transparently redirecting them to the various share locations. So, we can update these locations in the background without affecting the UNC path. So, for a standalone DFS namespace it would look something like this. We would have the server name (OOS), we would have the DFS namespace name(Shared Files), and then we would have subfolders representing project Organization, Home, User Files, and Software, etc. So now we've got a single drive mapping, in this case S, which is mapping to all these shares in the background, and as I say, if you wanted to redirect or move those shares, then you can do that using the DFS namespace without having to go through and update all the user client drive mappings.

Now, if we were doing this using a Domain DFS namespace, then instead of using the server, OOS, as the server name, you actually use the Active Directory domain name, and like before, the user will see the shares presented as subfolders.

STANDALONE VS DOMAIN NAMESPACE

The key difference is the referral server and where the DFS information is stored. On a standalone DFS implementation, the referral information is stored locally on the single DFS referral server that you choose when you configured DFS. Now this type of configuration is useful if you don't have an Active Directory domain or if for some reason you don't want to integrate with Active Directory, but the downside is that you can only have a single referral server, and if that server is offline then you're not going to be able to access the DFS namespace. The more common and generally preferred approach is to use Domain DFS. In Domain DFS you can have multiple DFS namespace referral servers, perhaps spread out amongst your core sites, and we use Active Directory to direct the clients to the closest referral server.

DFS Replication

DFSR is the component of DFS that allows you to duplicate the DFS data and replicate copies of that data across multiple locations. DFSR enables you to take file data and keep the data synchronized across two or more locations, and that's an important differentiation from BranchCache as BranchCache maintains a single master copy with only a local read-only cache. When you have multiple copies of the same data, there are inherent risks from people updating that data in multiple locations at the same time. Therefore, before setting up DFSR, ask yourself, will people, or maybe processes, be likely to be updating the files simultaneously in multiple locations? If this is expected to happen a lot, then DFSR may cause you issues and you may want to consider using BranchCache or perhaps just keeping a single copy of the data.

DFSR is very powerful, and it enables you to create really any type of replication topology that you can think of, and a useful feature of any replication mechanism is the ability to schedule and throttle the replication. If your WAN link is constrained, then you can protect it by only enabling replication in the evenings. Anytime you're going about replicating content from two different locations, there's always the chance that those two locations could get manipulated or changed at the same time. And so, for that reason, it can be important for us to configure staging or essentially a temporary location where data goes before it ends up replication from one site to the other. And finally, it also supports remote differential compression. This enables it to officially replicate only the changes to files, and not have to replicate the whole file itself when perhaps only a few bytes of data have changed. We will see how this works a little bit later.

DFSR Topologies

One – to – One Replication → This is where data is synchronized between two servers. This is an easy to understand topology, and relatively easy to troubleshoot, and it's good if you have two main locations dispersed over a WAN link.

One – to – Many Replication → This is useful if you have a main central site and you want your branch sites to have local copies of the data. A great use case for this could be a software distribution share or maybe you have read-only reference information that you want to make available to your branch users. It's worth highlighting that the shares on DFS within your branch sites or even your central site, can be made read-only, and the standard NTFS file permissions apply.

Many – to – One Replication → This, as the name suggests, is where multiple sites all replicate their data into a central location. So where might this be used? Well, it could be used for backup, where you have all the data replicated from your branch site, replicated into a single central site, and we have the backup software running on that central site.

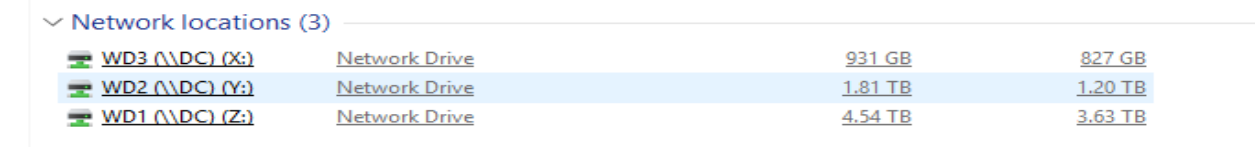
Hub – Spoke Replication → this is similar to many-to-one replication, however, it's bidirectional. This means that there would be two replication hubs between the branch sites because the branch sites would need to send data to the central site, and then the central site would replicate it out to the other branch sites.

Full Mesh → full mesh is where any server can potentially replicate with any other server. Now this can speed up the replication of changes, as there is a direct connection between sites, but it can also cause excessive replication, and it can also be very complicated to troubleshoot.

So, as you can see, you can configure replication pretty much as you wish, and as a rule of thumb I'd recommend aligning your replication topology to match your underlying physical network topology.

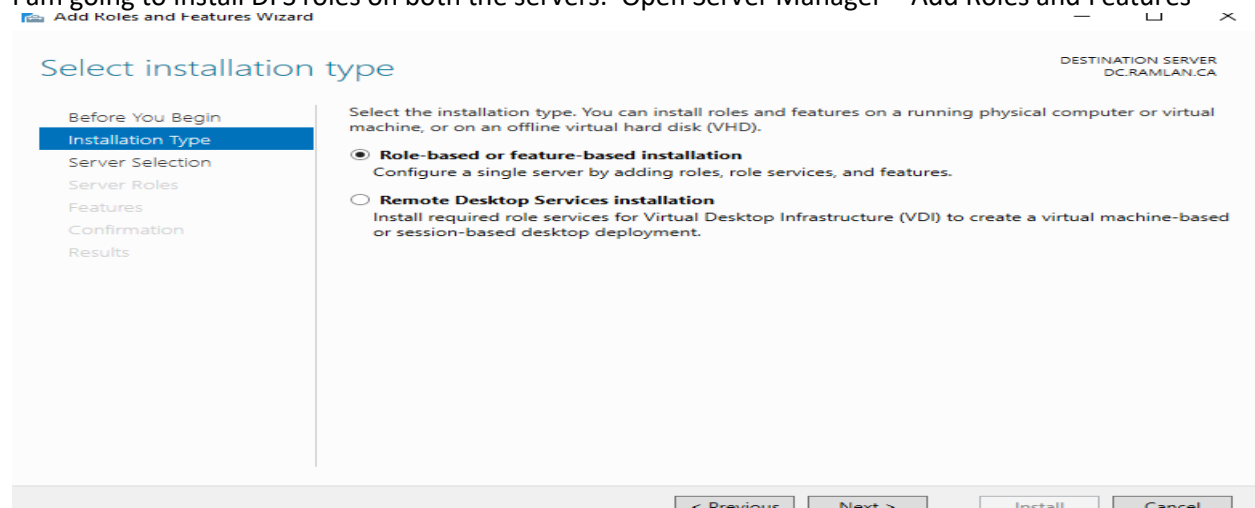
INSTALL AND CONFIGURE DFS NAMESPACE (DOMAIN-BASED NAMESPACE):

I will be using 2 servers (DC & OOS) for DFS setup. As of now files/folders are shared on DC and, I have 3 external hard drives connected to DC. Here is the screen shot.



Network Drive	Capacity	Used Space
WD3 (\\DC) (X:)	931 GB	827 GB
WD2 (\\DC) (Y:)	1.81 TB	1.20 TB
WD1 (\\DC) (Z:)	4.54 TB	3.63 TB

I am going to install DFS roles on both the servers. Open Server Manager – Add Roles and Features



Select destination server

DESTINATION SERVER
DC.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select a server or a virtual hard disk on which to install roles and features.

☒ Select a server from the server pool☐ Select a virtual hard disk

Server Pool

Filter:

Name	IP Address	Operating System
DC.RAMLAN.CA	192.168.0.2	Microsoft Windows Server 2019 Datacenter

1 Computer(s) found

This page shows servers that are running Windows Server 2012 or a newer release of Windows Server, and that have been added by using the Add Servers command in Server Manager. Offline servers and newly-added servers from which data collection is still incomplete are not shown.

< Previous

Next >

Install

Cancel

Select server roles

DESTINATION SERVER
DC.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select one or more roles to install on the selected server.

Roles

- ☐ Fax Server
- ☒ File and Storage Services (2 of 12 installed)
 - ☒ File and iSCSI Services (1 of 11 installed)
 - ☒ File Server (Installed)
 - ☐ BranchCache for Network Files
 - ☐ Data Deduplication
 - ☒ DFS Namespaces
 - ☒ DFS Replication
 - ☐ File Server Resource Manager
 - ☐ File Server VSS Agent Service
 - ☐ iSCSI Target Server
 - ☐ iSCSI Target Storage Provider (VDS and VSS)
 - ☐ Server for NFS
 - ☐ Work Folders
 - ☒ Storage Services (Installed)
- ☐ Host Guardian Service
- ☒ Hyper-V (Installed)
- ☐ Network Controller
- ☐ Network Policy and Access Services

Description

DFS Replication is a multimaster replication engine that enables you to synchronize folders on multiple servers across local or wide area network (WAN) network connections. It uses the Remote Differential Compression (RDC) protocol to update only the portions of files that have changed since the last replication. DFS Replication can be used in conjunction with DFS Namespaces, or by itself.

< Previous

Next >

Install

Cancel

Select features

DESTINATION SERVER
DC.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select one or more features to install on the selected server.

Features

- ☒ **.NET Framework 3.5 Features (2 of 3 installed)**
- ☒ **.NET Framework 4.7 Features (3 of 7 installed)**
- ☐ Background Intelligent Transfer Service (BITS)
- ☐ BitLocker Drive Encryption
- ☐ BitLocker Network Unlock
- ☒ BranchCache (Installed)
- ☐ Client for NFS
- ☐ Containers
- ☐ Data Center Bridging
- ☐ Direct Play
- ☐ Enhanced Storage
- ☐ Failover Clustering
- ☒ Group Policy Management (Installed)
- ☐ Host Guardian Hyper-V Support
- ☐ I/O Quality of Service
- ☐ IIS Hostable Web Core
- ☐ Internet Printing Client
- ☐ IP Address Management (IPAM) Server
- ☐ iSNS Server service

Description

.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

< Previous

Next >

Install

Cancel

Confirm installation selections

DESTINATION SERVER
DC.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

To install the following roles, role services, or features on selected server, click Install.

☐ Restart the destination server automatically if required

Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

File and Storage Services
File and iSCSI Services
DFS Namespaces
DFS Replication

Remote Server Administration Tools
Role Administration Tools
File Services Tools
DFS Management Tools

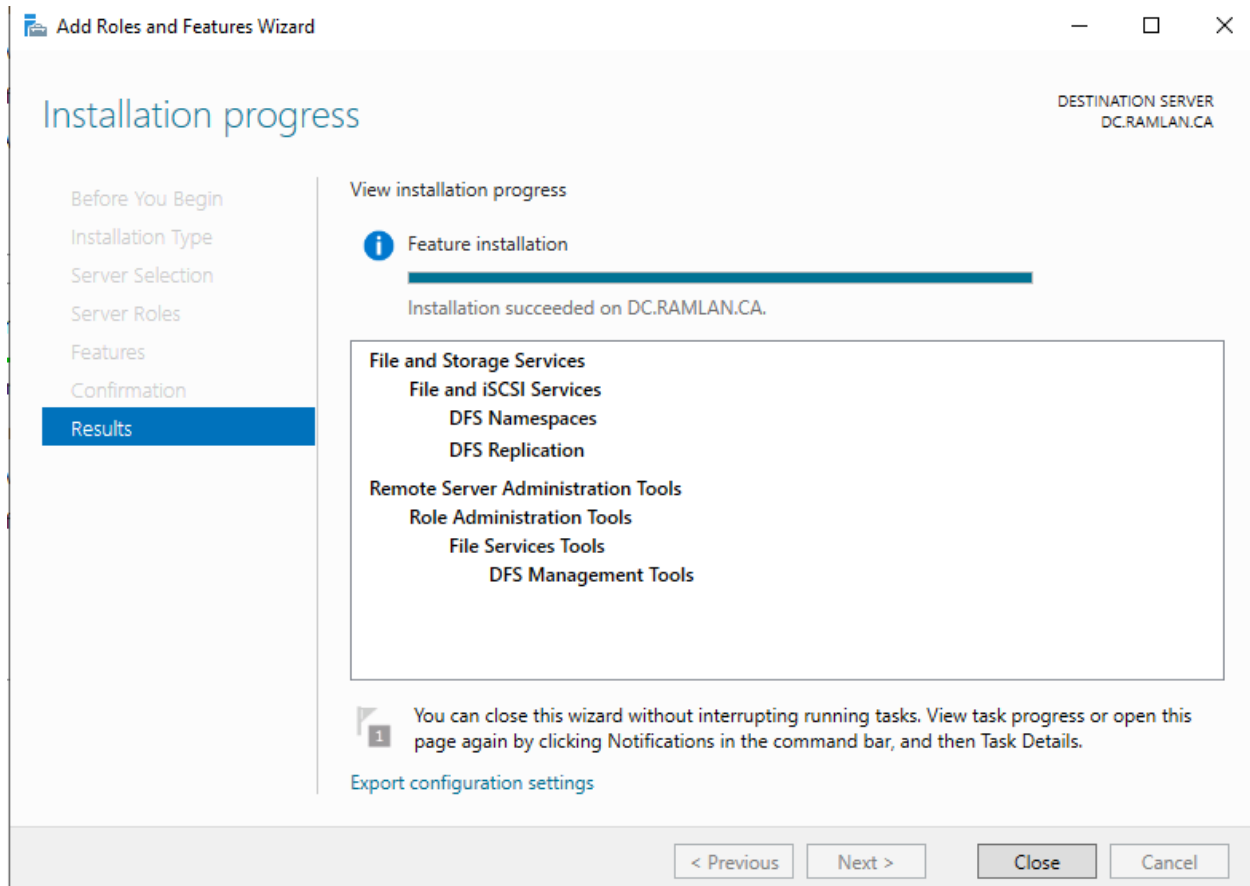
[Export configuration settings](#)
[Specify an alternate source path](#)

< Previous

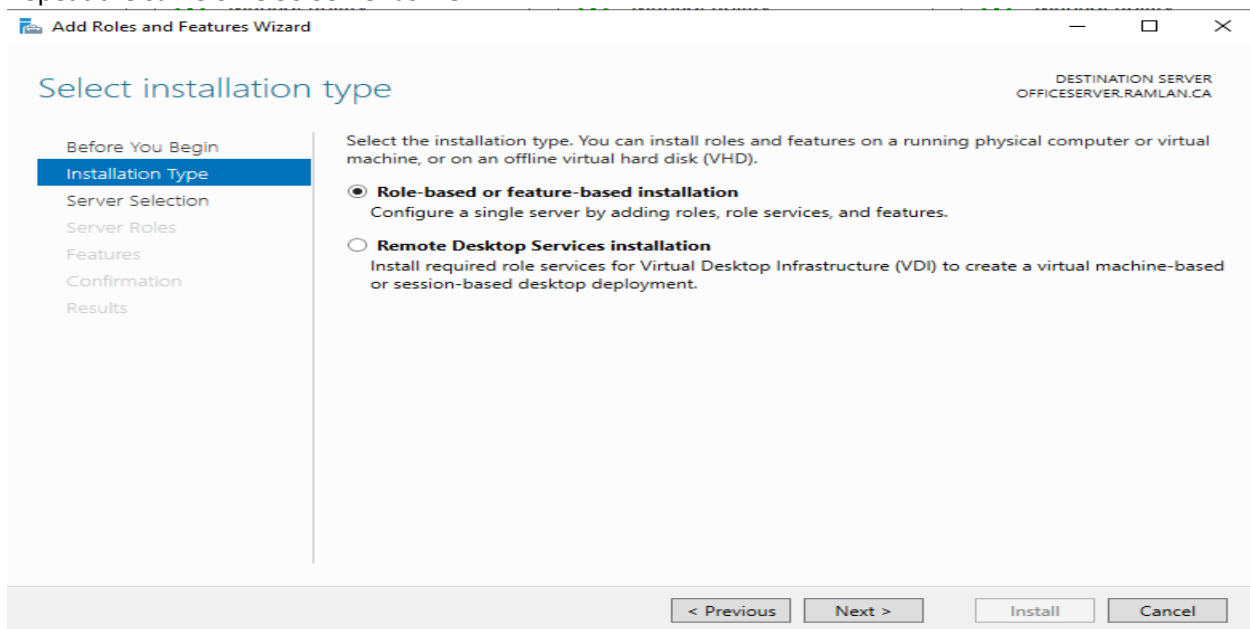
Next >

Install

Cancel



Repeat the same on OOS Server as well.



Select destination server

DESTINATION SERVER
OFFICESERVER.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select a server or a virtual hard disk on which to install roles and features.

- ☒ Select a server from the server pool
☐ Select a virtual hard disk

Server Pool

Filter:

Name

IP Address

Operating System

OFFICESERVER.RAMLAN...	192.168.0.6	Microsoft Windows Server 2019 Datacenter
------------------------	-------------	--

1 Computer(s) found

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< Previous

Next >

Install

Cancel

Select server roles

DESTINATION SERVER
OFFICESERVER.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select one or more roles to install on the selected server.

Roles

- ☐ Active Directory Certificate Services
- ☐ Active Directory Domain Services
- ☐ Active Directory Federation Services
- ☐ Active Directory Lightweight Directory Services
- ☐ Active Directory Rights Management Services
- ☐ Device Health Attestation
- ☐ DHCP Server
- ☐ DNS Server
- ☐ Fax Server
- ☒ File and Storage Services (1 of 12 installed)
 - ☒ File and iSCSI Services
 - ☒ File Server
 - ☐ BranchCache for Network Files
 - ☐ Data Deduplication
 - ☒ DFS Namespaces
 - ☒ DFS Replication
 - ☐ File Server Resource Manager
 - ☐ File Server VSS Agent Service
 - ☐ iSCSI Target Server

Description

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< Previous

Next >

Install

Cancel

Select features

DESTINATION SERVER
OFFICESERVER.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

Select one or more features to install on the selected server.

Features

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- ☐ Enhanced Storage
- ☐ Failover Clustering
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- ☐ I/O Quality of Service
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< Previous

Next >

Install

Cancel

Confirm installation selections

DESTINATION SERVER
OFFICESERVER.RAMLAN.CA

Before You Begin

Installation Type

Server Selection

Server Roles

Features

Confirmation

Results

To install the following roles, role services, or features on selected server, click Install.

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File and Storage Services
File and iSCSI Services
DFS Namespaces
DFS Replication
File Server

Remote Server Administration Tools
Role Administration Tools
File Services Tools
DFS Management Tools

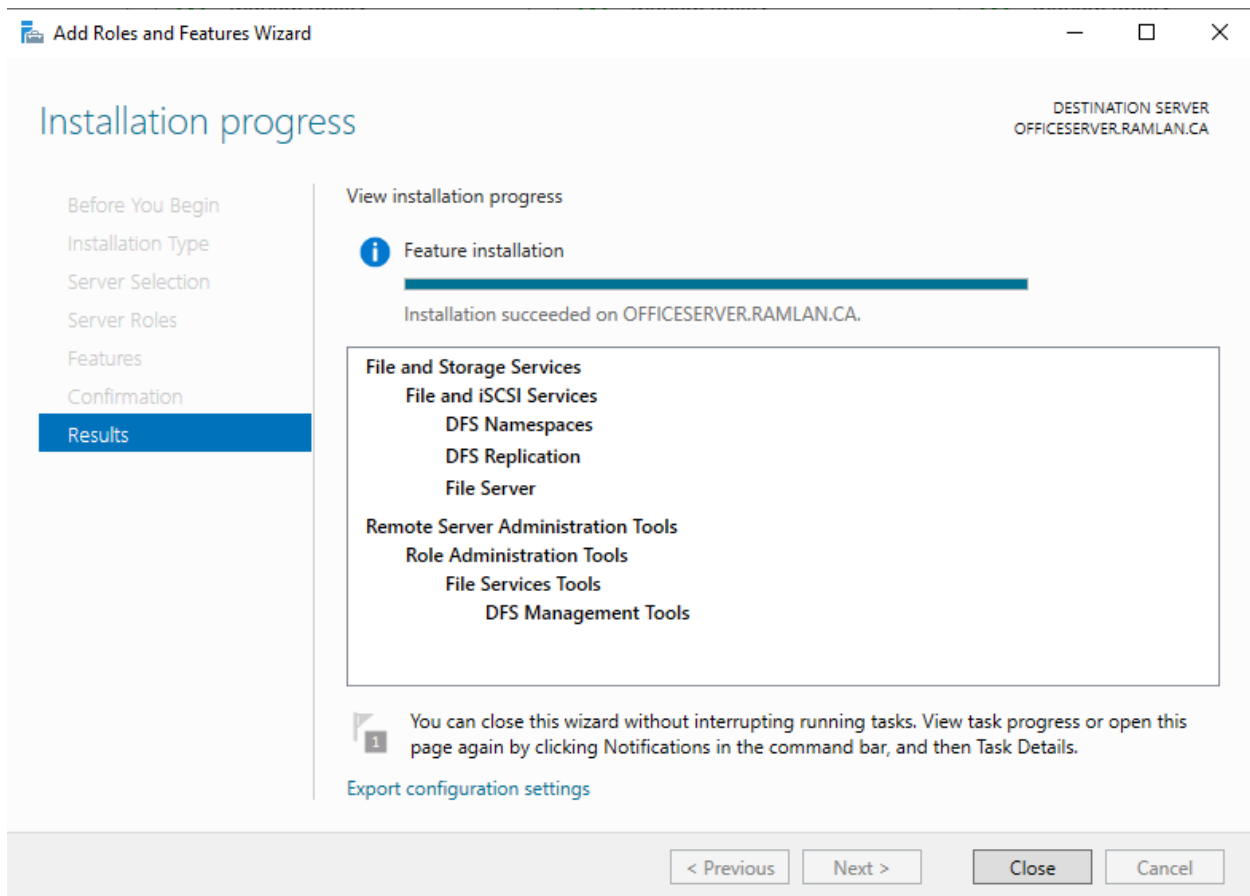
[Export configuration settings](#)
[Specify an alternate source path](#)

< Previous

Next >

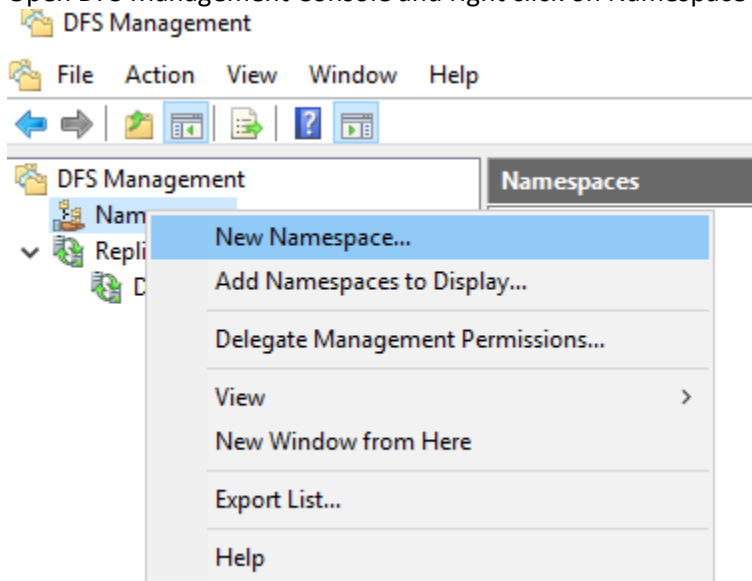
Install

Cancel



Now we can start our configuration. It will be on DC.

Open DFS Management Console and right click on Namespace and select new Namespace



New Namespace Wizard

Namespace Server

Steps:

Namespace Server

Namespace Name and Settings

Namespace Type

Review Settings and Create Namespace

Confirmation

Enter the name of the server that will host the namespace. The server you specify will be known as the namespace server.

Server:

dc

Browse...

< Previous

Next >

Cancel

New Namespace Wizard

Namespace Name and Settings

Steps:

Namespace Server

Namespace Name and Settings

Namespace Type

Review Settings and Create Namespace

Confirmation

Enter a name for the namespace name in the namespace path.

Name:

UserData

Example: Public

If necessary, the wizard will create the share and modify the settings of the share. Edit Settings.

Edit Settings...

Edit Settings

Namespace server:

dc

Shared folder:

UserData

Local path of shared folder:

C:\DFSRoots\UserData

Browse...

Shared folder permissions:

☒ All users have read-only permissions

☐ All users have read and write permissions

☐ Administrators have full access; other users have read-only permissions

☐ Administrators have full access; other users have read and write permissions

☐ Use custom permissions:

Customize...

OK

Cancel

< Previous

Next >

Cancel

New Namespace Wizard

Namespace Type

Steps:

Namespace Server

Namespace Name and Settings

Namespace Type

Review Settings and Create Namespace

Confirmation

Select the type of namespace to create.

☒ Domain-based namespace

A domain-based namespace is stored on one or more namespace servers and in Active Directory Domain Services. You can increase the availability of a domain-based namespace by using multiple servers. When created in Windows Server 2008 mode, the namespace supports increased scalability and access-based enumeration.

☒ Enable Windows Server 2008 mode

Preview of domain-based namespace:

\\RAMLAN.CA\UserData

☐ Stand-alone namespace

A stand-alone namespace is stored on a single namespace server. You can increase the availability of a stand-alone namespace by hosting it on a failover cluster.

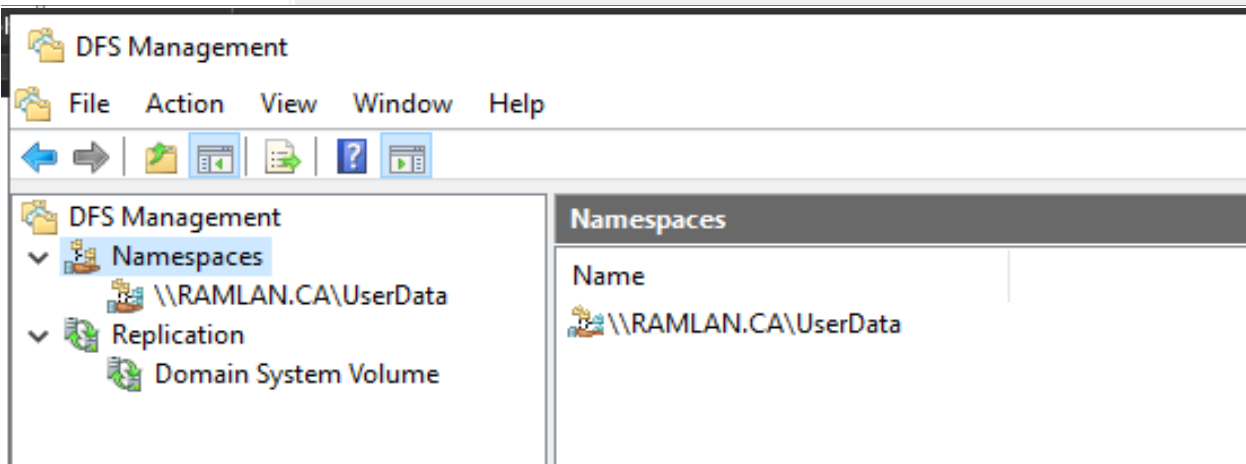
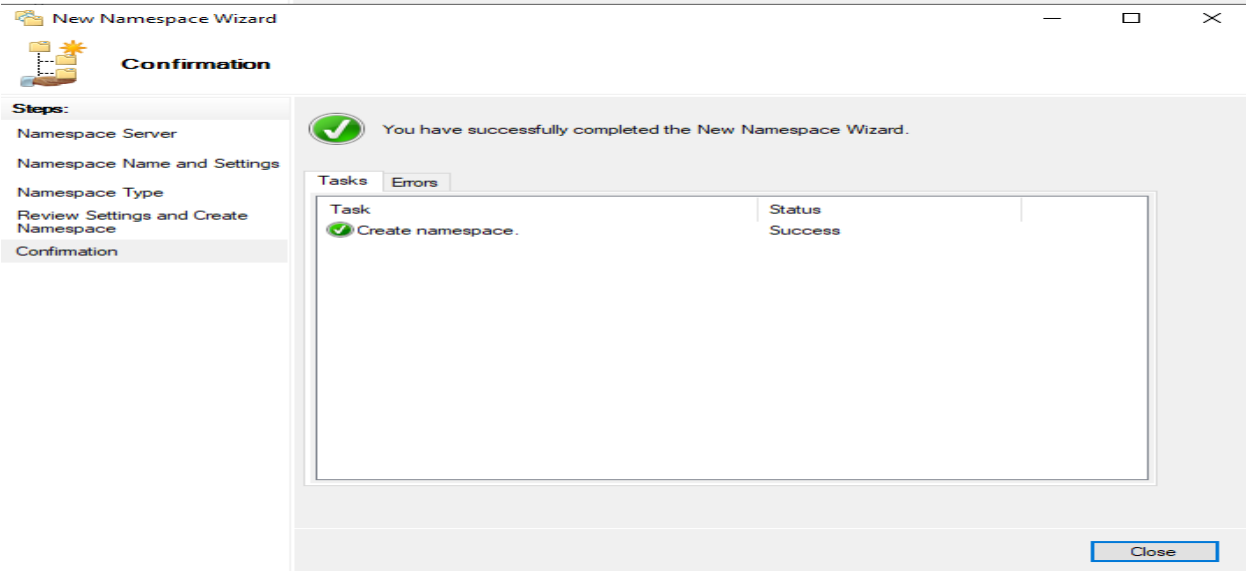
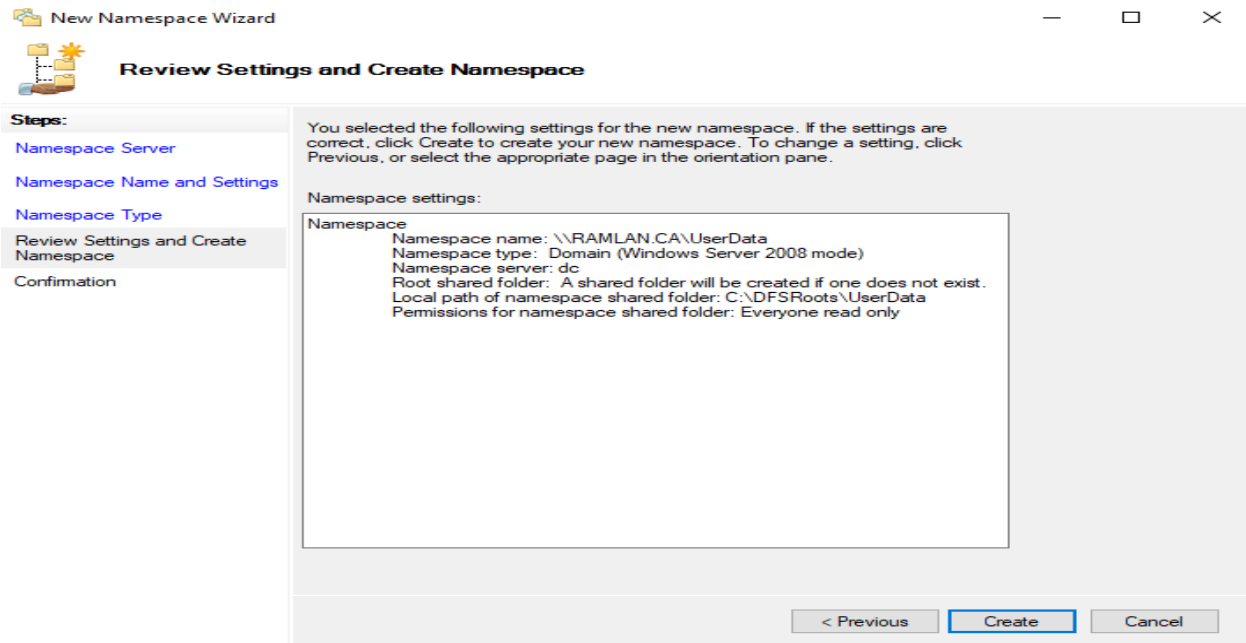
Preview of stand-alone namespace:

\\dc\UserData

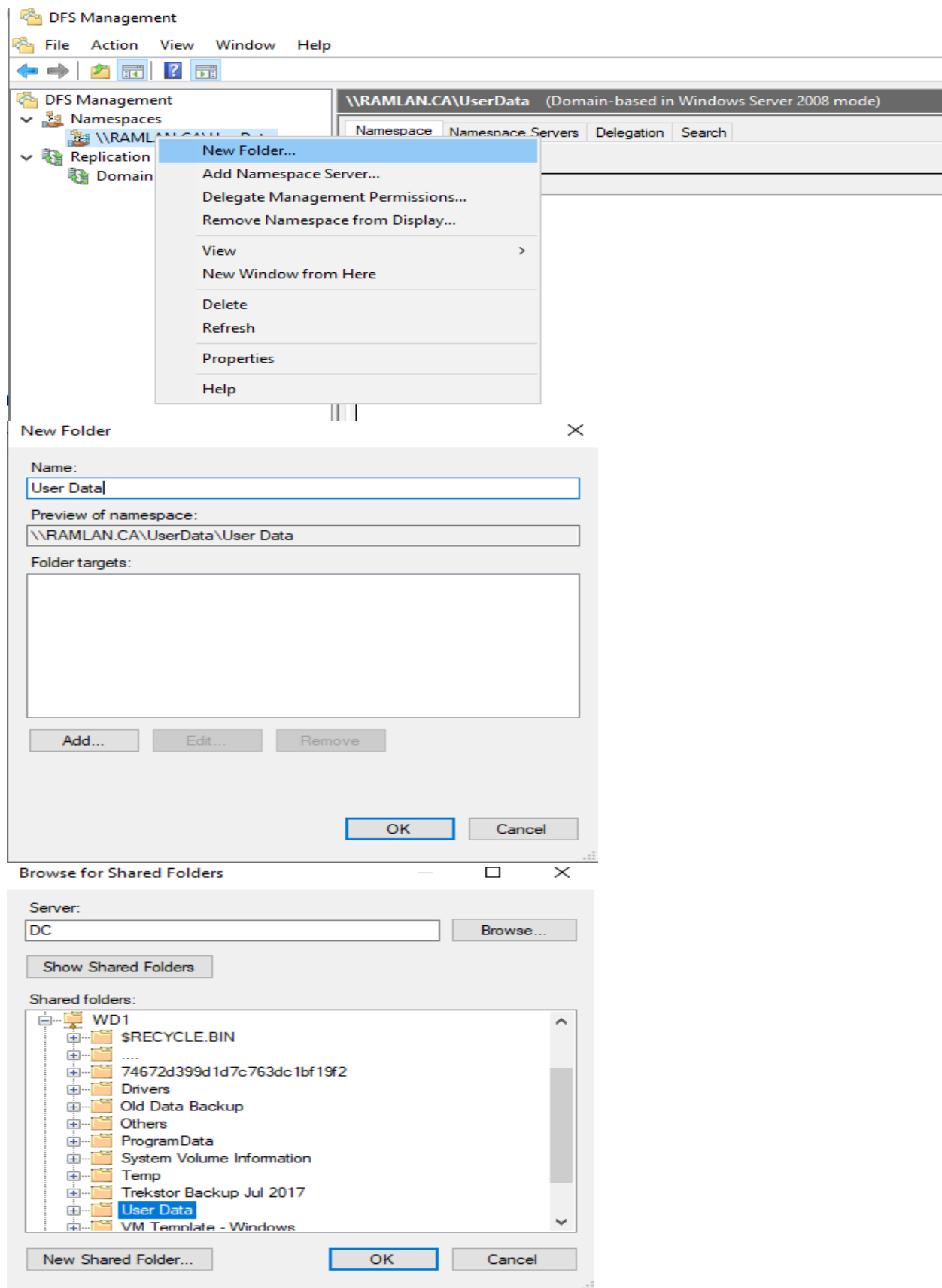
< Previous

Next >

Cancel



Let's add some target folders to this. Right-Click on the namespace and select New Folder



Add Folder Target

Path to folder target:

\\DC\WD1\User Data

Browse...

Example: \\Server\Shared Folder\Folder

OK

Cancel

New Folder

Name:

User Data

Preview of namespace:

\\RAMLAN.CA\UserData\User Data

Folder targets:

\\DC\WD1\User Data

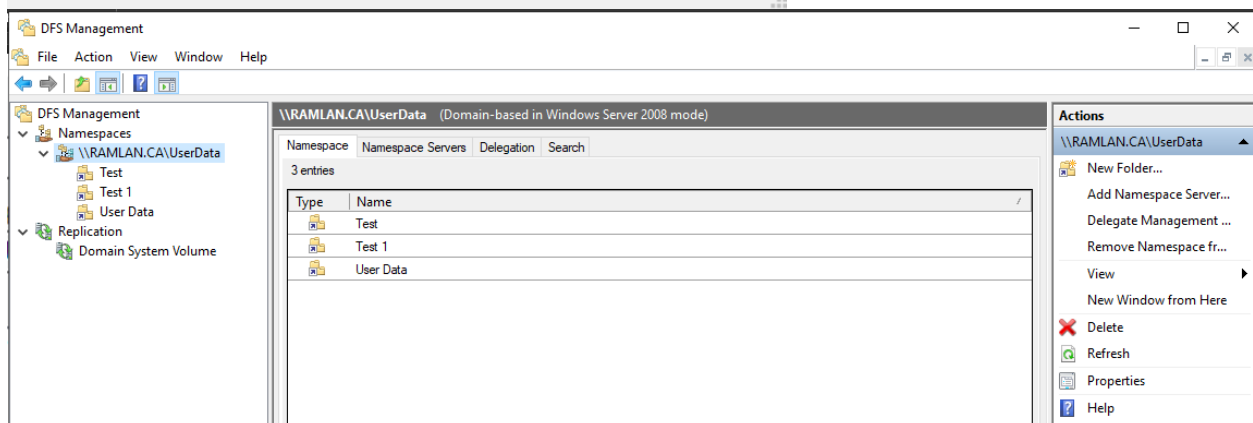
Add...

Edit...

Remove

OK

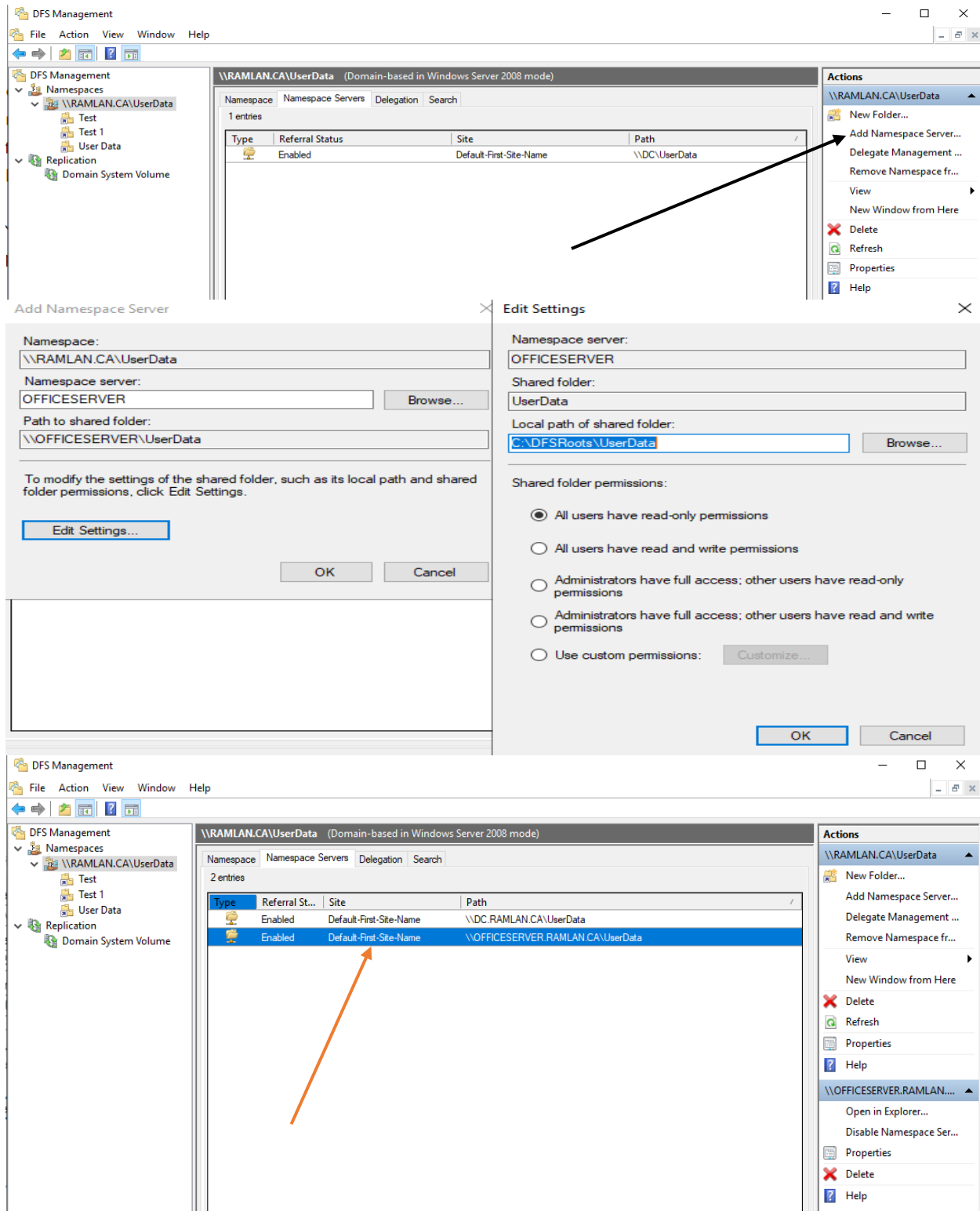
Cancel



We created folders and mapped all the folders to respective drives that are shared on DC Server.



CONFIGURE NAMESPACE REFERRAL SERVER:

Now we will add our second DFS Server (OOS) so, if there is any issue with DC the shared folders and files will be available to the user at all times.



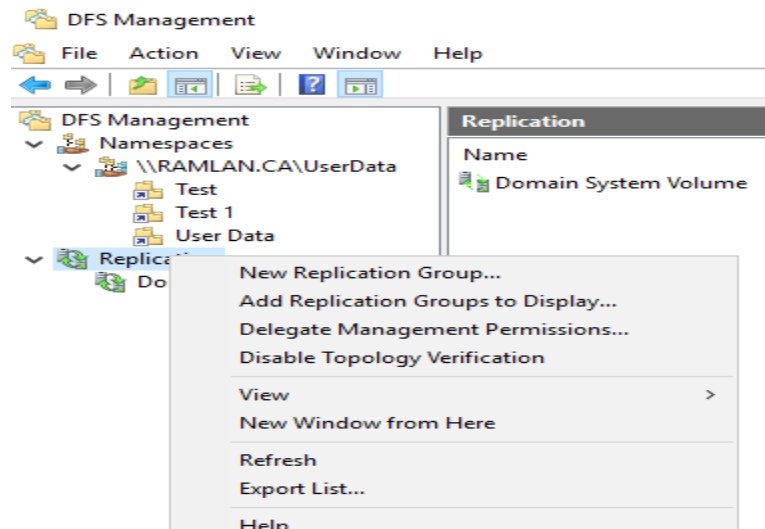
You will notice in the middle it's actually telling us what Active Directory site this server is in as well. DFS is Active Directory site aware, which basically means that if you have folder targets in different sites, then it's going to try and allocate the client to the closest folder target based on the client site.

On DC Server, I created a new folder called Company Files and inside I have few pdf files.

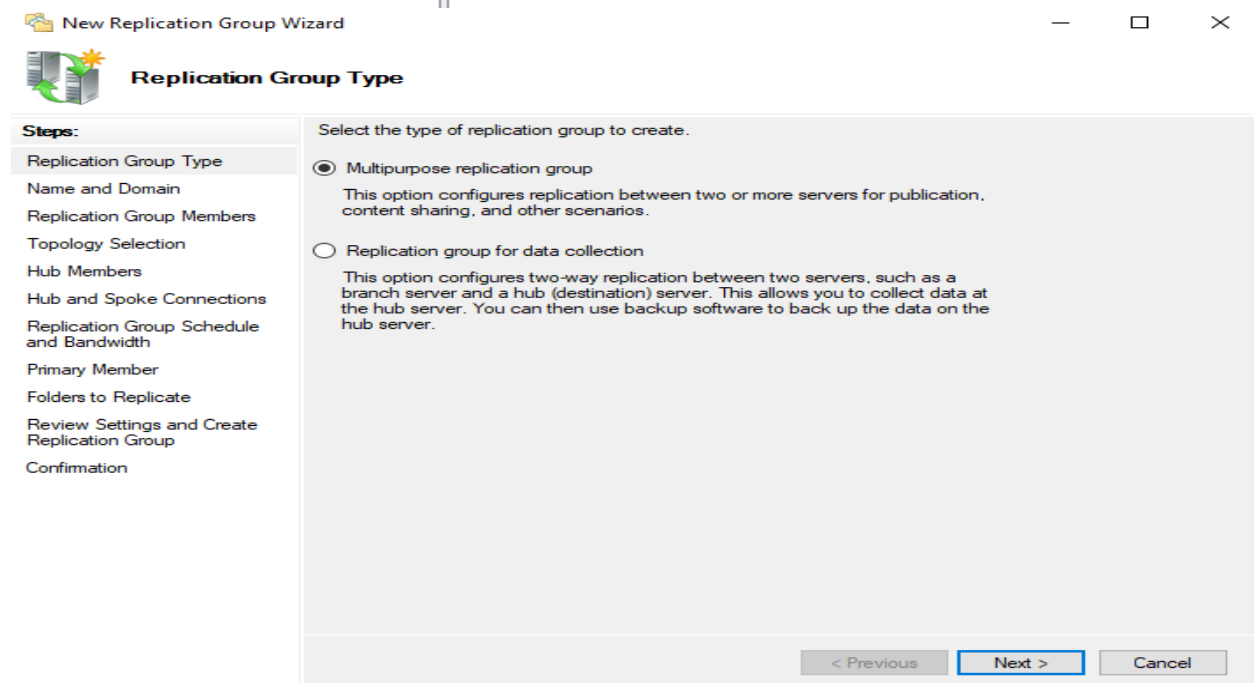
WD5TB (F:) > User Data > Company Data				
Name	Date modified	Type	Size	
 CompSkillPractTest2014.pdf	30-Aug-2017 8:30 ...	Adobe Acrobat D...	2,457 KB	
 Final Resume - Support.docx	06-Feb-2019 11:05...	Microsoft Word D...	29 KB	

I have another machine here called OOS which, I will use for DFS Replication. OOS is just another computer here in my Active Directory domain.

In order for us to create a replication relationship, we need to come to DFS management and create what is called a new replication group. Right-Click on Replication and select New Replication Group



The screenshot shows the DFS Management console. The left pane displays the hierarchy: DFS Management > Namespaces > \\RAMLAN.CA\UserData > Test > Test 1 > User Data. The right pane shows the 'Replication' tab with a list containing 'Domain System Volume'. A right-click context menu is open over the 'Replication' folder, showing options: 'New Replication Group...', 'Add Replication Groups to Display...', 'Delegate Management Permissions...', 'Disable Topology Verification', 'View', 'New Window from Here', 'Refresh', 'Export List...', and 'Help'.



The screenshot shows the 'New Replication Group Wizard' window, specifically the 'Replication Group Type' step. The left pane lists the steps: Replication Group Type, Name and Domain, Replication Group Members, Topology Selection, Hub Members, Hub and Spoke Connections, Replication Group Schedule and Bandwidth, Primary Member, Folders to Replicate, Review Settings and Create Replication Group, and Confirmation. The main area is titled 'Select the type of replication group to create.' and contains two radio button options: 'Multipurpose replication group' (selected) and 'Replication group for data collection'. The 'Multipurpose replication group' option has a description: 'This option configures replication between two or more servers for publication, content sharing, and other scenarios.' The 'Replication group for data collection' option has a description: 'This option configures two-way replication between two servers, such as a branch server and a hub (destination) server. This allows you to collect data at the hub server. You can then use backup software to back up the data on the hub server.' At the bottom right, there are three buttons: '< Previous', 'Next >', and 'Cancel'.

**Name and Domain****Steps:**

Replication Group Type

Name and Domain

Replication Group Members

Topology Selection

Hub Members

Hub and Spoke Connections

Replication Group Schedule
and Bandwidth

Primary Member

Folders to Replicate

Review Settings and Create
Replication Group

Confirmation

Type a name and domain for the replication group. The name of the replication group must be unique in the domain that hosts the replication group.

Name of replication group:

Company Files

Optional description of replication group:

Domain:

RAMLAN.CA

Browse...

< Previous

Next >

Cancel

**Replication Group Members****Steps:**

Replication Group Type

Name and Domain

Replication Group Members

Topology Selection

Hub Members

Hub and Spoke Connections

Replication Group Schedule
and Bandwidth

Primary Member

Folders to Replicate

Review Settings and Create
Replication Group

Confirmation

Click Add and then select two or more servers that will become members of the replication group.

Members:

Server	Domain
DC	RAMLAN.CA
OFFICESERVER	RAMLAN.CA

Add...

Remove

< Previous

Next >

Cancel

**Topology Selection****Steps:**

[Replication Group Type](#)
[Name and Domain](#)
[Replication Group Members](#)
Topology Selection
[Replication Group Schedule and Bandwidth](#)
[Primary Member](#)
[Folders to Replicate](#)
[Review Settings and Create Replication Group](#)
[Confirmation](#)

Select a topology of connections among members of the replication group.

☐ Hub and spoke

This topology requires three or more members in the replication group. In this topology, spoke members are connected to one or two hub members. This topology works well in publication scenarios where data originates from the hub member and replicates out to the spoke members.



☒ Full mesh

In this topology, each member replicates with all other members of the replication group. This topology works well when there are ten or fewer members in the replication group.



☐ No topology

Select this option if you want to create a custom topology after you finish this wizard. No replication will take place until you create the custom topology.

< Previous

Next >

Cancel

**Replication Group Schedule and Bandwidth****Steps:**

[Replication Group Type](#)
[Name and Domain](#)
[Replication Group Members](#)
[Topology Selection](#)
Replication Group Schedule and Bandwidth
[Primary Member](#)
[Folders to Replicate](#)
[Review Settings and Create Replication Group](#)
[Confirmation](#)

Select the replication schedule and bandwidth to be used by default for all new connections in the replication group.

☒ Replicate continuously using the specified bandwidth

Use this option to enable replication 24 hours a day, seven days a week using the following bandwidth:

Bandwidth:

Full ▾

☐ Replicate during the specified days and times

Use this option to specify the days and times at which replication occurs by default. The initial replication schedule has no replication intervals; you must create at least one replication interval before replication can occur.

Edit Schedule...

< Previous

Next >

Cancel

**Primary Member****Steps:**

Replication Group Type
Name and Domain
Replication Group Members
Topology Selection
Replication Group Schedule and Bandwidth
Primary Member
Folders to Replicate
Review Settings and Create Replication Group
Confirmation

Select the server that contains the content you want to replicate to other members. This server is known as the primary member.

Primary member:

DC



If the folders to be replicated already exist on multiple servers, the folders and files on the primary member will be authoritative during initial replication.

< Previous

Next >

Cancel

Add Folder to Replicate

Member:

DC

Local path of folder to replicate:

f:\User Data\Company Data

Browse...

Example: C:\Documents

Select or type a name to represent this folder on all members of the replication group. This name is known as the replicated folder name.

☒ Use name based on path:

Company Data

☐ Use custom name:

Example: Documents

Permissions >>

OK

Cancel

**Folders to Replicate****Steps:**

Replication Group Type
Name and Domain
Replication Group Members
Topology Selection
Replication Group Schedule and Bandwidth
Primary Member
Folders to Replicate
Local Path of Company Data on Other Members
Review Settings and Create Replication Group
Confirmation

To select a folder on the primary member that you want to replicate to other members of the replication group, click Add.

Replicated folders:

Local Path	Replicated Folder Name	NTFS Permissions
f:\User Data\Company Data	Company Data	Use existing per...

Add...

Edit...

Remove

< Previous

Next >

Cancel

**Local Path of Company Data on Other Members****Steps:**

Replication Group Type
Name and Domain
Replication Group Members
Topology Selection
Replication Group Schedule and Bandwidth
Primary Member
Folders to Replicate
Local Path of Company Data on Other Members
Review Settings and Create Replication Group
Confirmation

To specify the local path of the replicated folder or whether the folder is read-only, select the appropriate member and then click Edit.



Primary member: DC

Primary member local path: f:\User Data\Company Data

Member details:

Member	Local Path	Membership Stat...
OFFICESERVER	<Not Set>	Disabled

Edit...

< Previous

Next >

Cancel

General

Member:

OFFICESERVER

Select the initial status of the replicated folder on this member.

Membership status:

☐ Disabled
The replicated folder will not be stored on this member.

☒ Enabled
Keep the following folder synchronized with other members.

Local path of folder:

Browse...

Example: C:\Data

☐ Make the selected replicated folder on this member read-only.

Browse For Folder

Select a folder

OFFICESERVER.RAMLAN.CA

c\$

Company Data

DFSRoots

inetpub

PerfLogs

Program Files

Folder:

Company Data

Make New Folder

OK

New Replication Group Wizard



Local Path of Company Data on Other Members

Steps:

- Replication Group Type
- Name and Domain
- Replication Group Members
- Topology Selection
- Replication Group Schedule and Bandwidth
- Primary Member
- Folders to Replicate
- Local Path of Company Data on Other Members
- Review Settings and Create Replication Group
- Confirmation

To specify the local path of the replicated folder or whether the folder is read-only, select the appropriate member and then click Edit

Primary member: DC
 Primary member local path: f:\User Data\Company Data

Member details:

Member	Local Path	Membership Stat...
OFFICESERVER	c:\Company Data	Enabled

Edit...

< Previous

Next >

Cancel

**Review Settings and Create Replication Group****Steps:**

- Replication Group Type
- Name and Domain
- Replication Group Members
- Topology Selection
- Replication Group Schedule and Bandwidth
- Primary Member
- Folders to Replicate
- Local Path of Company Data on Other Members
- Review Settings and Create Replication Group**
- Confirmation

You selected the following settings for the new replication group. If the settings are correct, click Create to create the new replication group. To change a setting, click Previous, or select the appropriate page in the orientation pane.

Replication group settings:

Replication Group Name:
Company Files

Replication Group Description:

Domain of Replication Group:
RAMLAN.CA

Replication Group Members (2):
DC
OFFICESERVER

Topology type:
Full mesh

List of connections (2):
OFFICESERVER -> DC
DC -> OFFICESERVER

Default Connection Schedule:
Replicate continuously with Full bandwidth

< Previous

Create

Cancel

**Review Settings and Create Replication Group****Steps:**

- Replication Group Type
- Name and Domain
- Replication Group Members
- Topology Selection
- Replication Group Schedule and Bandwidth
- Primary Member
- Folders to Replicate
- Local Path of Company Data on Other Members
- Review Settings and Create Replication Group**
- Confirmation

You selected the following settings for the new replication group. If the settings are correct, click Create to create the new replication group. To change a setting, click Previous, or select the appropriate page in the orientation pane.

Replication group settings:

OFFICESERVER -> DC
DC -> OFFICESERVER

Default Connection Schedule:
Replicate continuously with Full bandwidth

Primary Member:
DC

Replicated Folder Name:
Company Data

Member: DC
Path: f:\User Data\Company Data
Status: Enabled

Member: OFFICESERVER
Path: c:\Company Data
Status: Enabled

NTFS Permission: From primary

< Previous

Create

Cancel

**Confirmation****Steps:**

Replication Group Type
Name and Domain
Replication Group Members
Topology Selection
Replication Group Schedule and Bandwidth
Primary Member
Folders to Replicate
Local Path of Company Data on Other Members
Review Settings and Create Replication Group
Confirmation



You have successfully completed the New Replication Group Wizard.

Tasks**Errors**

Task	Status
✓ Create replication group.	Success
✓ Create members.	Success
✓ Set permissions on replicated folders.	Success
✓ Create replicated folder.	Success
✓ Create membership objects.	Success
✓ Create connections.	Success



To size the staging folder quota large enough to prevent replication from slowing or stopping, you must take into account the size of the files to be replicated. For more information, see the [staging folder optimization guidance](#).

Close**Replication Delay**

Replication will not begin until the configuration is picked up by the members of the replication group. The amount of time this takes depends on Active Directory Domain Services replication latency as well as the polling interval.

☐ Do not show this again

OK

DFS Management

File Action View Window Help

DFS Management

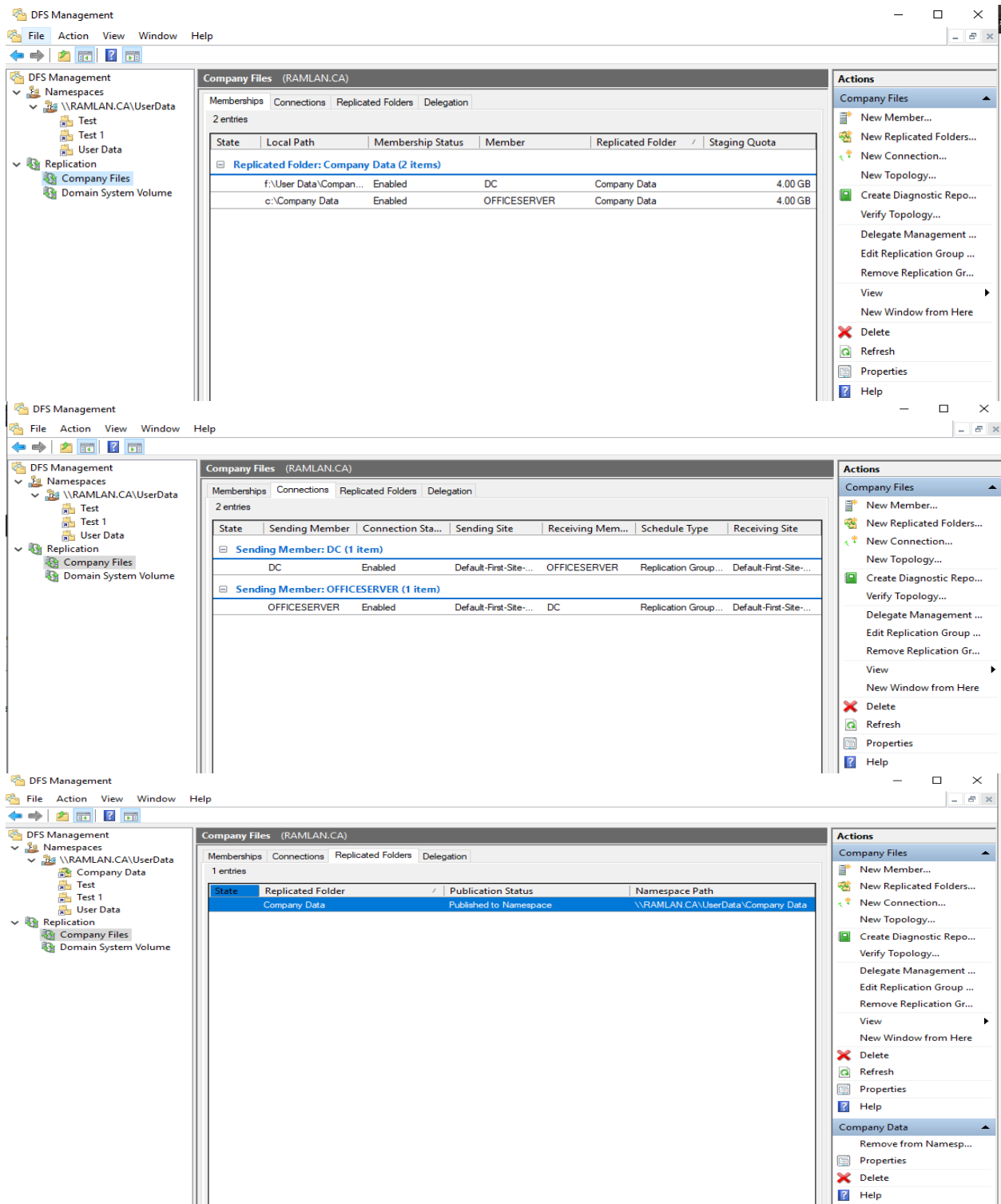
- Namespaces
 - \\RAMLAN.CA\UserData
 - Test
 - Test 1
 - User Data
 - Replication
 - Company Files
 - Domain System Volume

Replication

Name
Company Files
Domain System Volume

Actions

- Replication
 - New Replication Group...
 - Add Replication Group...
 - Delegate Management ...
 - Disable Topology Verifi...
- View
 - New Window from Here
- Refresh
- Export List...
- Help



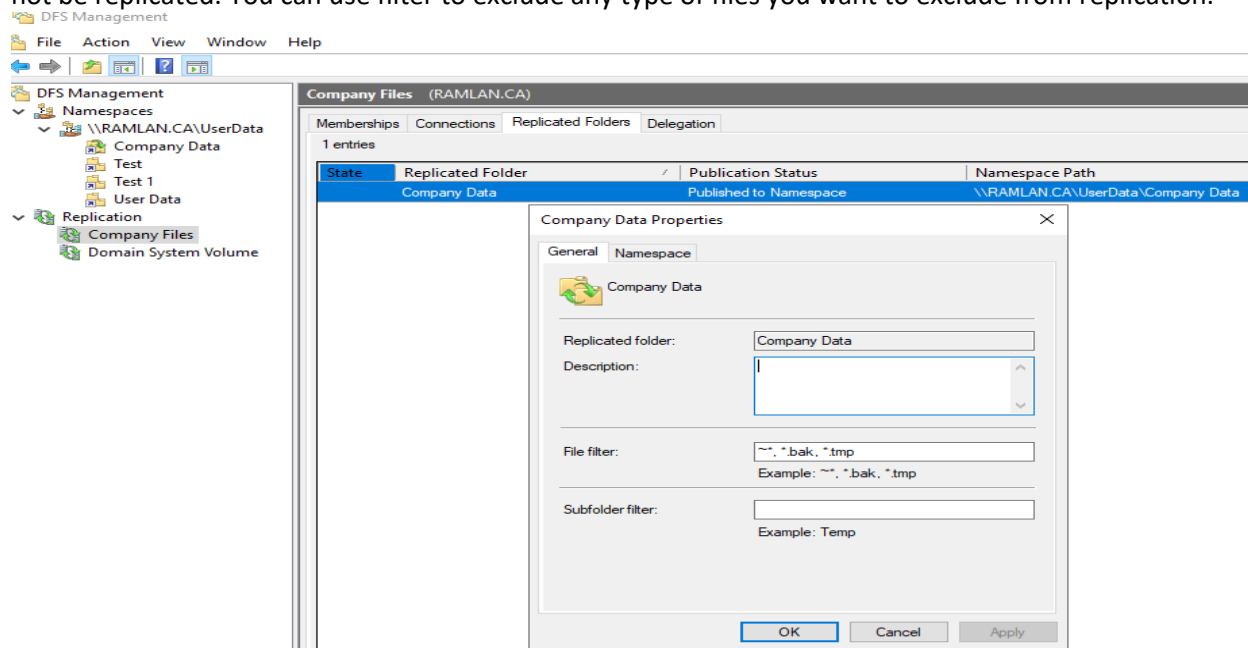
The files got replicated to OOS Server – Here is the screen shot

OFFICESERVER > OS (C:) > Company Data

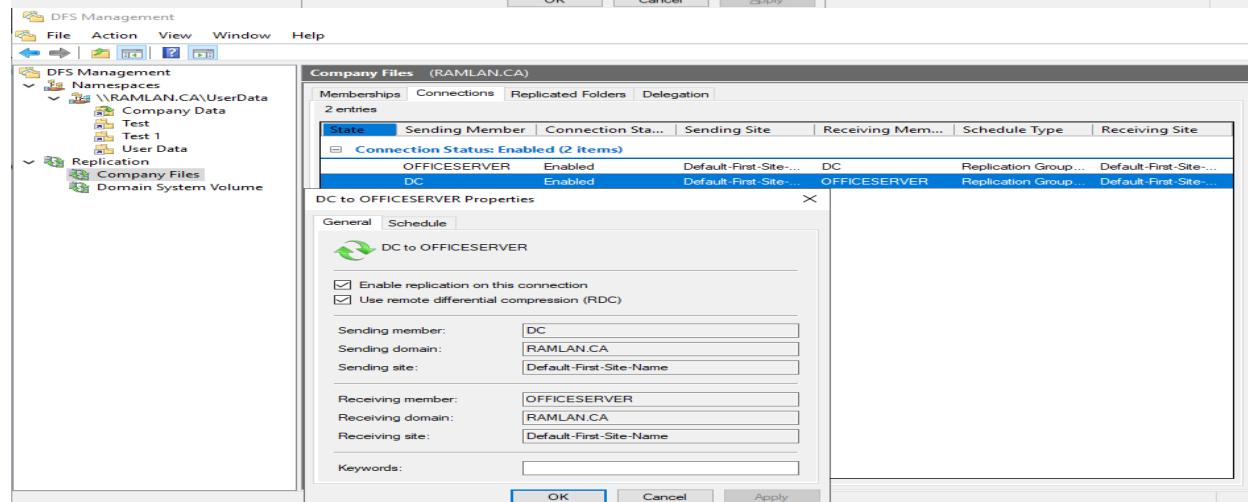
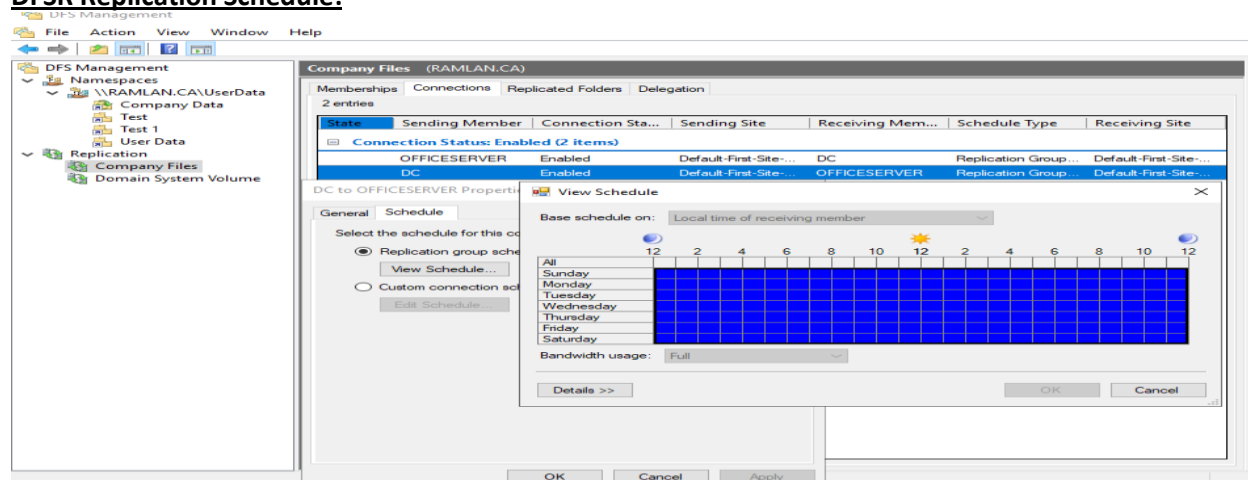
Name	Date modified	Type	Size
CompSkillPractTest2014.pdf	30-Aug-2017 8:30 ...	Adobe Acrobat D...	2,457 KB
Final Resume - Support.docx	06-Feb-2019 11:05...	Office Open XML ...	29 KB

CONFIGURE FILE FILTERS:

In File filter you can see default files .bak,.tmp extension of files. This means that these types of files will not be replicated. You can use filter to exclude any type of files you want to exclude from replication.



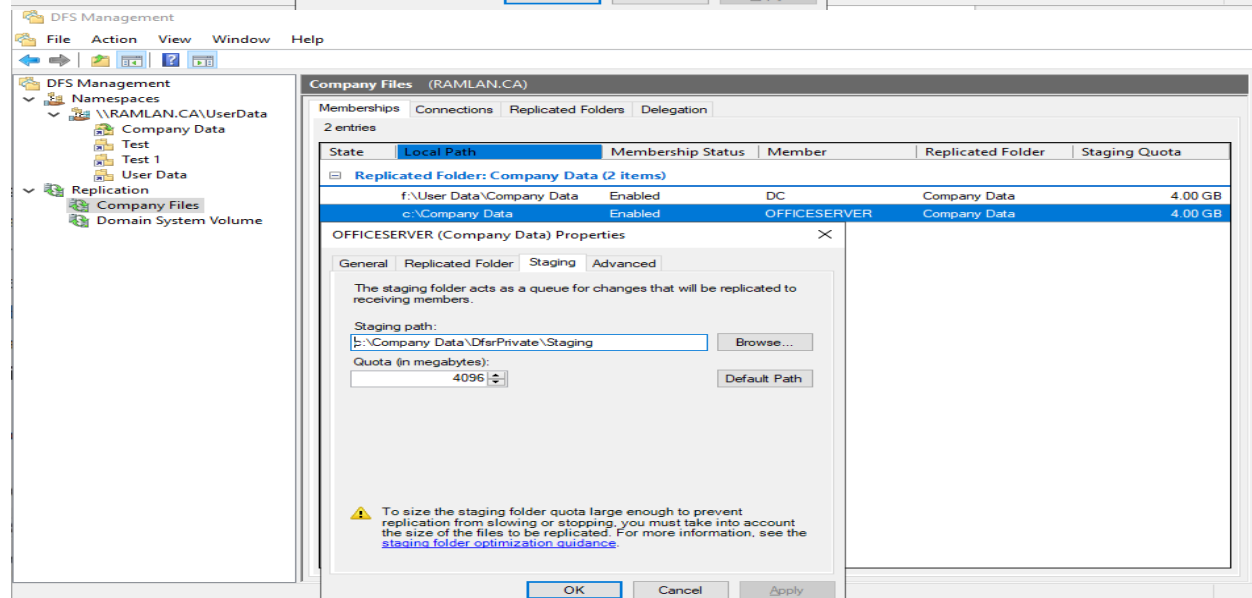
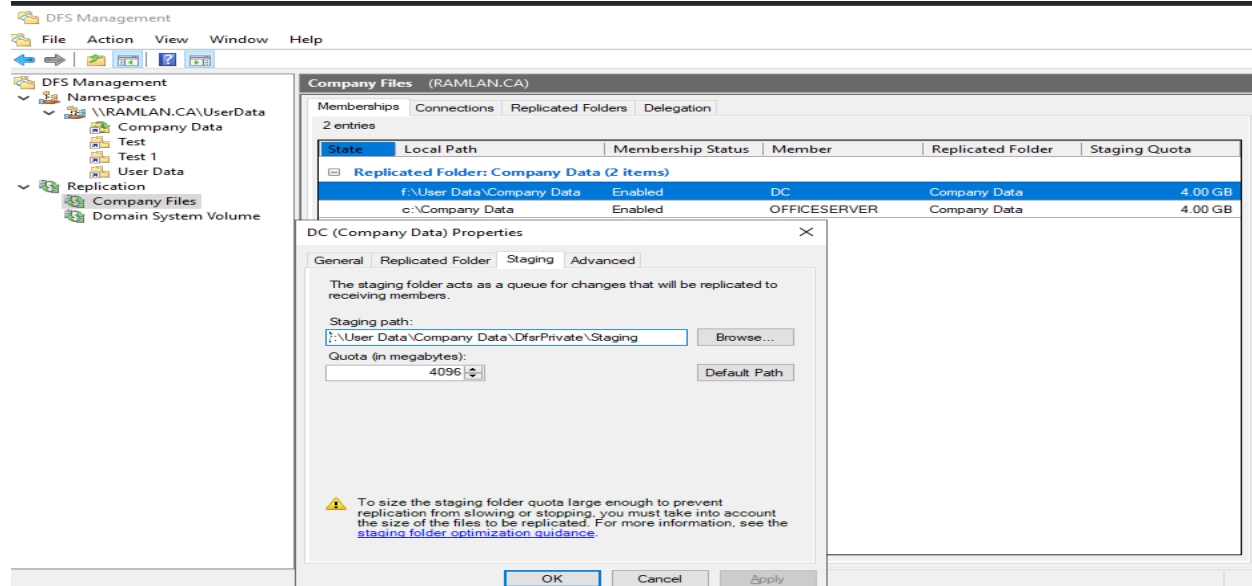
DFSR Replication Schedule:



CONFIGURE STAGING:

Reducing the schedule or reducing the bandwidth of a replication connection can also have the effect of having two people perhaps make changes on a file before that file can be replicated and before one's changes can be replicated to the other. Well, very large files also have a similar situation because just the amount of time required to get the file transferred from one location to the other can be longer than the amount of time between when the original file was changed and some other user attempts to make a change in the target location and so for that purpose, here with DFSR, there is also a staging location that's created for files that exceed a certain size.

If we take a look at either of the two servers that are participating in this replication connection, if I right click on one of them and choose properties



Here in C:\Company Data, the DFS private location and staging is a separate folder where files are transferred to. These files are transferred to this location to be staged before their transfer to another location. The use of this staging folder enables us to have a bit of a queue for these changes to occur so they're replicated to the other location, the target location without worrying about there being any modifications or changes by users during the process of a transfer. You can change to staging path. You can also change what the quota would be for the file size to be used for staging.

WHAT EACH TAB LOOKS:

REPLICATION: Memberships:

DFS Management

File Action View Window Help

DFS Management

- Namespaces
 - \\RAMLAN.CA\UserData
 - Company Data
 - Test
 - Test 1
 - User Data
 - Replication
 - Company Files
 - Domain System Volume

Company Files (RAMLAN.CA)

Memberships

Connections

Replicated Folders

Delegation

2 entries

State	Local Path	Membership Status	Member	Replicated Folder	Staging Quota
Replicated Folder: Company Data (2 items)					
	f:\User Data\Company Data	Enabled	DC	Company Data	4.00 GB
	c:\Company Data	Enabled	OFFICESERVER	Company Data	4.00 GB

OFFICESERVER (Company Data) Properties

General

Replicated Folder

Staging

Advanced

OFFICESERVER (Company Data)

Member: OFFICESERVER

Member domain: RAMLAN.CA

Member site: Default-First-Site-Name

Replication group: Company Files

Incoming connections: 1

Outgoing connections: 1

OK

Cancel

Apply

OFFICESERVER (Company Data) Properties

General

Replicated Folder

Staging

Advanced

Name: Company Data

Local path on member: c:\Company Data

Membership status: Enabled

OK

Cancel

Apply

OFFICESERVER (Company Data) Properties

General

Replicated Folder

Staging

Advanced

The staging folder acts as a queue for changes that will be replicated to receiving members.

Staging path: \\.\Company Data\DfsrPrivate\Staging

Quota (in megabytes): 4096

To size the staging folder quota large enough to prevent replication from slowing or stopping, you must take into account the size of the files to be replicated. For more information, see the [staging folder optimization guidance](#).

OK

Cancel

Apply

OFFICESERVER (Company Data) Properties

General

Replicated Folder

Staging

Advanced

The Conflict and Deleted folder caches files and folders where conflicting changes were made on two or more members. The folder can also cache deleted files and folders.

Conflict and Deleted path: c:\Company Data\DfsrPrivate\ConflictAndDeleted

Quota (in megabytes): 4096

☒ Move deleted files to Conflict and Deleted folder

OK

Cancel

Apply

REPLICATION: Connections:

DFS Management

File Action View Window Help

DFS Management

Namespaces

- \\RAMLAN.CA\UserData
 - Company Data
 - Test
 - Test 1
 - User Data

Replication

- Company Files
- Domain System Volume

Company Files (RAMLAN.CA)

Memberships Connections Replicated Folders Delegation

2 entries

State	Sending Member	Connection Sta...	Sending Site	Receiving Mem...	Schedule Type	Receiving Site
Connection Status: Enabled (2 items)						
	OFFICESERVER	Enabled	Default-First-Site-...	DC	Replication Group...	Default-First-Site-...
	DC	Enabled	Default-First-Site-...	OFFICESERVER	Replication Group...	Default-First-Site-...

DC to OFFICESERVER Properties

DC to OFFICESERVER Properties

General Schedule

DC to OFFICESERVER

☒ Enable replication on this connection

☒ Use remote differential compression (RDC)

Sending member: DC

Sending domain: RAMLAN.CA

Sending site: Default-First-Site-Name

Receiving member: OFFICESERVER

Receiving domain: RAMLAN.CA

Receiving site: Default-First-Site-Name

Keywords:

OK

Cancel

Apply

General Schedule

Select the schedule for this connection.

☒ Replication group schedule:

View Schedule...

☐ Custom connection schedule:

Edit Schedule...

OK

Cancel

Apply

REPLICATION: Replicated Folders:

DFS Management

File Action View Window Help

DFS Management

Namespaces

- \\RAMLAN.CA\UserData
 - Company Data
 - Test
 - Test 1
 - User Data

Replication

- Company Files
- Domain System Volume

Company Files (RAMLAN.CA)

Memberships Connections Replicated Folders Delegation

1 entries

State	Replicated Folder	Publication Status	Namespace Path
	Company Data	Published to Namespace	\\RAMLAN.CA\UserData\Company Data

Company Data Properties

General Namespace

Company Data

Replicated folder: Company Data

Description:

File filter: ~*, *.bak, *.tmp
Example: ~*, *.bak, *.tmp

Subfolder filter:
Example: Temp

OK Cancel Apply

Company Data Properties

General Namespace

This replicated folder is part of a namespace and can be accessed using the following path.

Namespace path:
\\RAMLAN.CA\UserData\Company Data

OK Cancel Apply

REPLICATION: Delegation:

DFS Management

File Action View Window Help

DFS Management

Namespaces

- \\RAMLAN.CA\UserData
 - Company Data
 - Test
 - Test 1
 - User Data

Replication

- Company Files
- Domain System Volume

Company Files (RAMLAN.CA)

Memberships Connections Replicated Folders Delegation

3 entries

User or Group	How Permission Is Granted
NT AUTHORITY\SYSTEM	Explicit
RAMLAN\Domain Admins	Explicit
RAMLAN\Enterprise Admins	Inherited

NAMESPACES:

The screenshot shows the DFS Management console with the left pane displaying the namespace hierarchy: DFS Management > Namespaces > \\RAMLAN.CA\UserData. The right pane shows the 'Namespace' tab for \\RAMLAN.CA\UserData, listing 4 entries: Company Data, Test, Test 1, and User Data. Below this, three 'Company Data Properties' dialog boxes are open, showing the 'General' tab. The first dialog shows the folder 'Company Data' with namespace path '\\RAMLAN.CA\UserData\Company Data'. The second dialog shows the 'Referrals' tab with 'Cache duration (in seconds)' set to 1800 and 'Effective referral ordering' set to 'Lowest cost'. The third dialog shows the 'Advanced' tab with 'Use inherited permissions from the local file system' selected.

DFS Management

File Action View Window Help

DFS Management

Namespaces

\\RAMLAN.CA\UserData

Company Data

Test

Test 1

User Data

Replication

Company Files

Domain System Volume

\\RAMLAN.CA\UserData (Domain-based in Windows Server 2008 mode)

Namespace Namespace Servers Delegation Search

4 entries

Type	Name
Company Data	Company Data
Test	Test
Test 1	Test 1
User Data	User Data

Company Data Properties

General Referrals Advanced

Company Data

Folder: Company Data

Namespace path: \\RAMLAN.CA\UserData\Company Data

Description:

Company Data Properties

General Referrals Advanced

Specify the amount of time that clients cache (store) referrals for this folder.

Cache duration (in seconds): 1800

This folder inherits settings from the root. Click a check box to override the namespace settings.

☐ Exclude targets outside of the client's site

Effective referral ordering: Lowest cost

☐ Clients fail back to preferred targets

Effective fallback mode for clients: Disabled

Company Data Properties

General Referrals Advanced

Specify how DFS Namespaces controls which users can see this folder. By default, permissions are inherited from the local file system of the namespace server, granting all domain users the ability to view all folders in the namespace.

☒ Use inherited permissions from the local file system

☐ Set explicit view permissions on the DFS folder

Configure view permissions

Access-based enumeration is not enabled for this namespace. Users can see all folders in this namespace.

OK Cancel Apply

NAMESPACES: Name Servers:

The screenshot shows the DFS Management console with the left pane displaying the namespace hierarchy: DFS Management > Namespaces > \\DC.RAMLAN.CA\UserData. The right pane shows the 'Namespace Servers' tab for \\DC.RAMLAN.CA\UserData, listing 2 entries: Enabled, Default-First-Site-Name, \\DC.RAMLAN.CA\UserData and Enabled, Default-First-Site-Name, \\OFFICESERVER.RAMLAN.CA\UserData. Below this, two '\\DC.RAMLAN.CA\UserData Properties' dialog boxes are open, showing the 'General' tab. The first dialog shows 'Enable referrals for this namespace server' checked, with path '\\DC.RAMLAN.CA\UserData' and site 'Default-First-Site-Name'. The second dialog shows the 'Advanced' tab with 'Override referral ordering' unchecked.

DFS Management

File Action View Window Help

DFS Management

Namespaces

\\DC.RAMLAN.CA\UserData

Company Data

Test

Test 1

User Data

Replication

Company Files

Domain System Volume

\\DC.RAMLAN.CA\UserData (Domain-based in Windows Server 2008 mode)

Namespace Namespace Servers Delegation Search

2 entries

Type	Referral St...	Site	Path
Enabled	Default-First-Site-Name	\\DC.RAMLAN.CA\UserData	
Enabled	Default-First-Site-Name	\\OFFICESERVER.RAMLAN.CA\UserData	

\\DC.RAMLAN.CA\UserData Properties

General Advanced

\\DC.RAMLAN.CA\UserData

☒ Enable referrals for this namespace server

Path: \\DC.RAMLAN.CA\UserData

Share Permissions...

Site: Default-First-Site-Name

\\DC.RAMLAN.CA\UserData Properties

General Advanced

You can override referral ordering for this target by selecting the following check box, and then specifying where this target appears in referrals.

☐ Override referral ordering:

Target priority:

☐ First among all targets

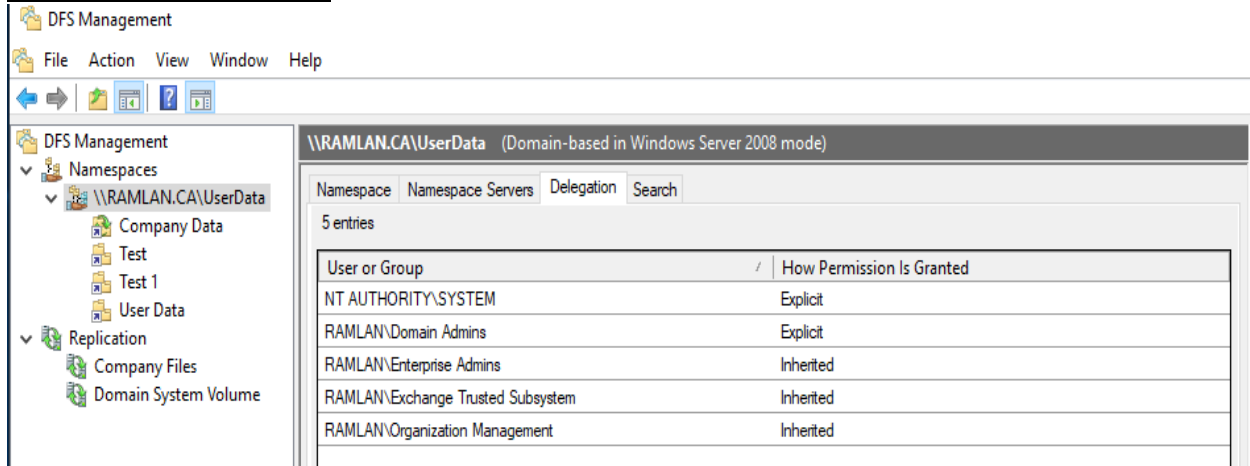
☐ Last among all targets

☐ First among targets of equal cost

☐ Last among targets of equal cost

OK Cancel Apply

NAMESPACES: Delegation:



DFS / R TROUBLESHOOTING:

So we've gone through and we've set up DFS and DFS Replication. Hopefully by now you can see that it's reasonably straightforward once you get your head around the various constructs and approaches for doing it. But happens when things go wrong? The last thing we need to check is how we can troubleshoot DFS and DFS Replication.

We'll start off by looking at a tool called DFSDiag, and then we'll look at another tool we can use to troubleshoot called DFSUtil.

Open PowerShell as admin and type in DFSDIAG /? to see the options. Here we can see we've got various checks that we can do. So we can test the domain controllers, the sites, the DFS config, integrity, etc.,

```
Administrator: Windows PowerShell
PS C:\Users\Administrator> dfsdiag /?

----- Commands supported -----

/TestDCs                Checks domain controller configuration.
/TestSites              Checks site associations.
/TestDFSConfig          Checks DFS Namespace configuration.
/TestDFSIntegrity       Checks DFS Namespace integrity.
/TestReferral           Checks referral responses.
/?                     Displays this help.

Notes:
Use the /? parameter after any command to display help for the command.
PS C:\Users\Administrator>
```

dfsdiag /testreferral /DFSPath:\\ramlan.ca\userdata

```
Administrator: Windows PowerShell

Starting TestDcs...

Validating the DFS Namespace service...
Validating DFS Namespace service on DC.
Success: The DFS Namespace service on the following server is started and set to start automatically: DC

Validating SiteCostedReferrals Key...
Validating site costed referrals in DC.
Success: Site costing is enabled on SYSVOL/NETLOGON referrals.

Validating registry entries...
The following domain has a single domain controller: ramlan.ca

Validating site associations...

Validating the site associations on every domain controller of the following: DC
Success: The site associated with the following host name is consistent on all accessible domain controllers: DC
Finished TestDcs.

Starting TestSites...

Validating site associations...

Validating the site associations on every domain controller of the following: DC
Success: The site associated with the following host name is consistent on all accessible domain controllers: DC
Finished TestSites.

Validating the following domain in the domain cache: ramlan.ca
Success: Information for the following domain in the domain cache is OK: ramlan.ca

Starting TestSites...

Validating the site associations on every domain controller of the following: DC.RAMLAN.CA
Success: The site associated with the following host name is consistent on all accessible domain controllers: DC.RAMLAN.CA

Validating the site associations on every domain controller of the following: OFFICESERVER.RAMLAN.CA
Success: The site associated with the following host name is consistent on all accessible domain controllers: OFFICESERVER.RAMLAN.CA
Finished TestSites.

Starting TestDfsConfig...
Retrieving all the namespace servers...

Validating the DFS Namespace service...
Validating DFS Namespace service on DC.RAMLAN.CA.
Success: The DFS Namespace service on the following server is started and set to start automatically: DC.RAMLAN.CA
Validating DFS Namespace service on OFFICESERVER.RAMLAN.CA.
Success: The DFS Namespace service on the following server is started and set to start automatically: OFFICESERVER.RAMLAN.CA

Validating registry entries...
Comparing DC.RAMLAN.CA - OFFICESERVER.RAMLAN.CA.
Success: The registry values under HKLM\CCS\Services\Dfs\Parameters are consistent on all compared servers.
Finished TestDfsConfig.

Starting TestDfsIntegrity...

Validating the DFS metadata integrity of \\RAMLAN\UserData...
Checking for DFS metadata consistency between domain controllers and the PDC emulator in the domain...
Success: DFS metadata is consistent across all accessible domain controllers and the PDC emulator.

Checking the registry of the namespace servers...
Success: Registry information on namespace servers is consistent with the metadata in Active Directory Domain Services.

Validating reparse points of all DFS folders in namespace: \\RAMLAN\UserData

Checking for duplicate and overlapping folders (links) in namespace \\RAMLAN\UserData
Duplicate and overlapping folders (links) test completed.
Finished TestDfsIntegrity.
```

dfsutil root \\ramlan.ca\userdata

```
Administrator: Windows PowerShell

PS C:\Users\Administrator> dfsutil root \\ramlan.ca\userdata
DomainV2 Root with 4 Links

Root Name="\\RAMLAN.CA\UserData" State="OK" Timeout="300"
SITECOSTING = "1"
Target="\\DC.RAMLAN.CA\UserData" State="ONLINE" [Site: Default-First-Site-Name]
Target="\\OFFICESERVER.RAMLAN.CA\UserData" State="ONLINE" [Site: Default-First-Site-Name]

Link Name="Test 1" State="OK" Timeout="1800"
Target="\\DC\WD2\Test 1" State="ONLINE" [Site: Default-First-Site-Name]

Link Name="Test" State="OK" Timeout="1800"
Target="\\DC\WD3\Test" State="ONLINE" [Site: Default-First-Site-Name]

Link Name="User Data" State="OK" Timeout="1800"
Target="\\DC\WD1\User Data" State="ONLINE" [Site: Default-First-Site-Name]

Link Name="Company Data" State="OK" Timeout="1800"
Target="\\DC.RAMLAN.CA\Company Data" State="ONLINE" [Site: Default-First-Site-Name]
Target="\\OFFICESERVER.RAMLAN.CA\Company Data" State="ONLINE" [Site: Default-First-Site-Name]

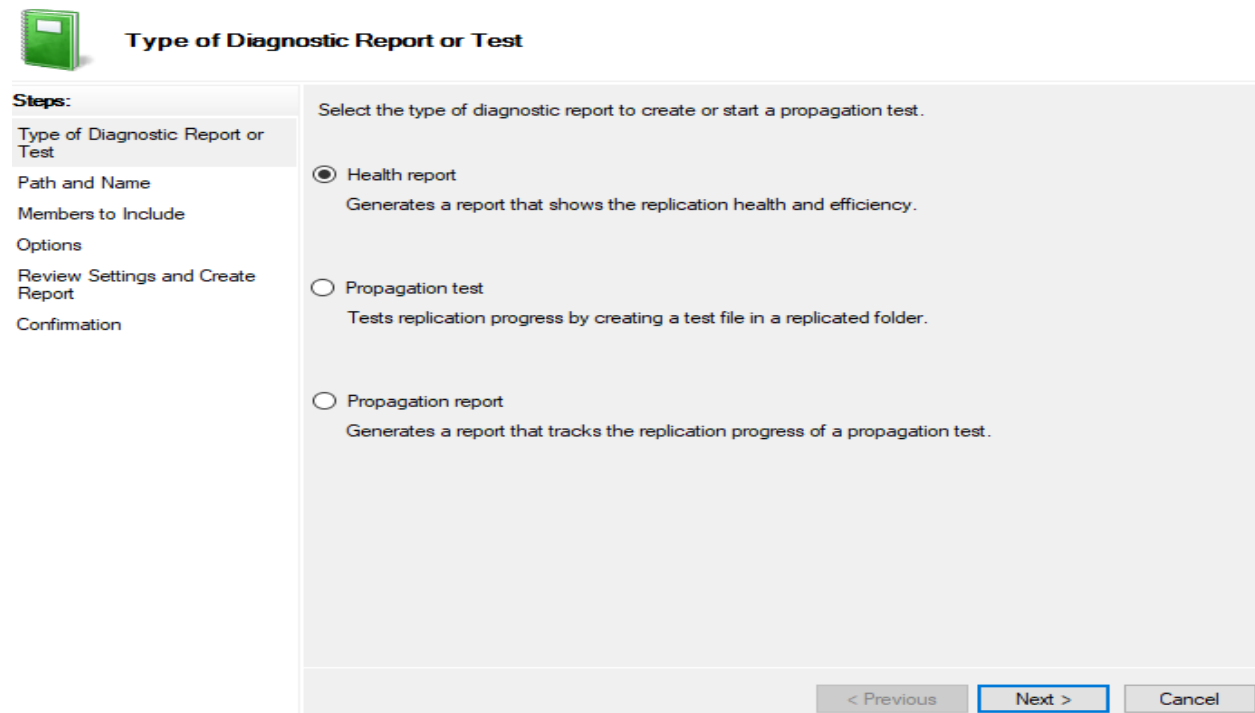
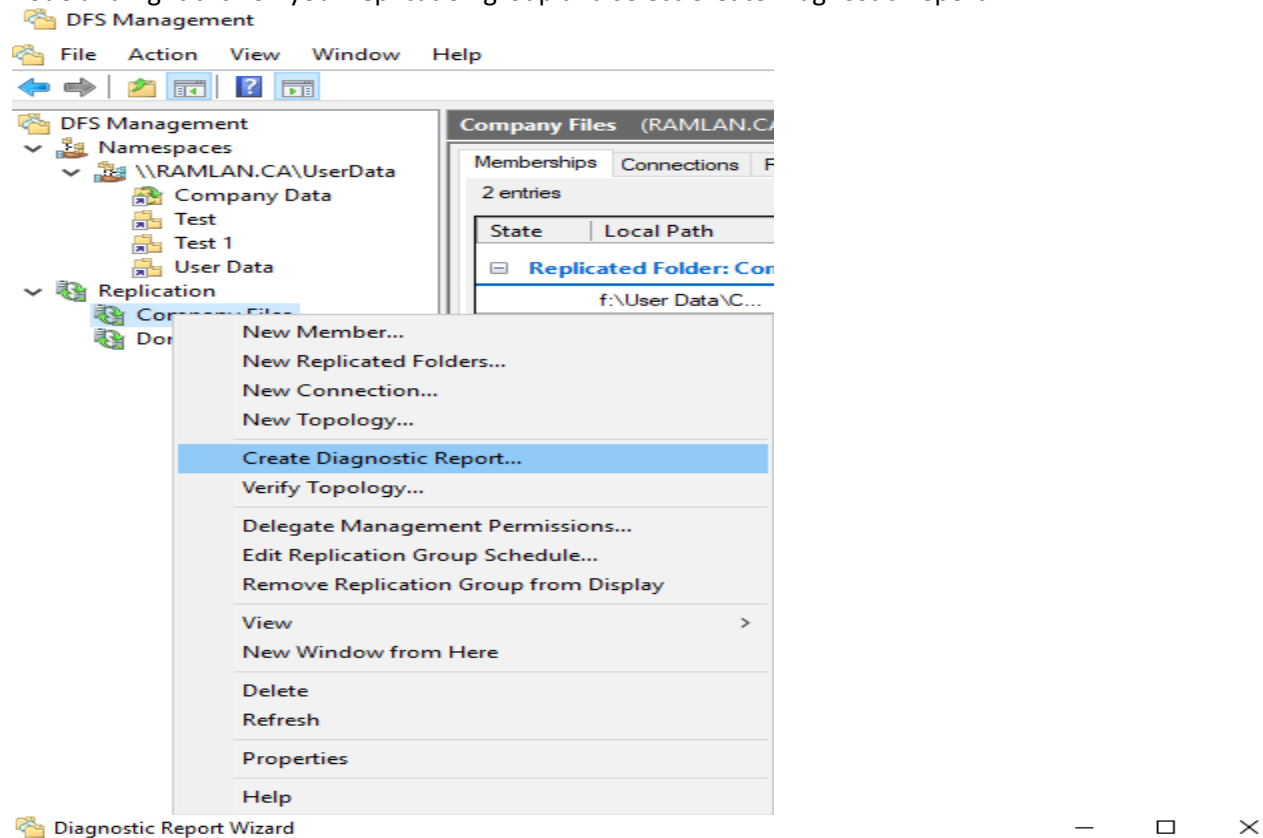
Root with 4 Links

NOTE: All site information shown was generated by this utility.
Actual DFS behavior depends on site information currently in use by
DFS service, and may not reflect configuration changes made recently.
```

TROUBLESHOOTING REPLICATION:

There's a number of tools and utilities that we can use, but we're going to start by looking at the diagnostic reports that you can generate from within the DFS Management console.

Let's start with running Diagnostic Reports. Open DFS Management Console → Expand the replication node and right click on your replication group and select Create Diagnostic Report



**Path and Name****Steps:**

Type of Diagnostic Report or Test
Path and Name
Members to Include
Options
Review Settings and Create Report
Confirmation

Enter the path and name for the diagnostic report to be generated for the selected replication group.

Replication group:

Company Files

Report path:

C:\DFSReports

Browse...

Report name:

Health-Company Files-02Mar2019-1107

< Previous

Next >

Cancel

**Members to Include****Steps:**

Type of Diagnostic Report or Test
Path and Name
Members to Include
Options
Review Settings and Create Report
Confirmation

Select the members to be included in the report. These members will be polled to obtain events and other information related to the health of DFS Replication.

Excluded members:

Included members:

DC
OFFICESERVER

Add >

< Remove

< Previous

Next >

Cancel

**Options****Steps:**

Type of Diagnostic Report or Test
Path and Name
Members to Include
Options
Review Settings and Create Report
Confirmation

To help you determine if all members are up-to-date, the wizard can count the backloged files and the replicated files and their sizes on each member.

Do you want the wizard to count backloged files?

☒ Yes, count backloged files in this report

Select a reference member that has the most up-to-date files. Files on this member will be used to compare files on other members.

Reference Member:

DC

☐ No, do not count backloged files in this report

A large number of backloged files may increase the amount of time it takes to create the health report.

☐ Count the replicated files and their sizes on each member

Having a replication folder with more than 10,000 files will significantly increase the amount of time it takes to create the health report.

< Previous

Next >

Cancel



Review Settings and Create Report

Steps:

- Type of Diagnostic Report or Test
- Path and Name
- Members to Include
- Options
- Review Settings and Create Report
- Confirmation

You selected the following settings for the new report. If the settings are correct, click Create to create the report. To change a setting, click Previous, or select the appropriate page in the orientation pane.

Settings:

Replication Group:	Company Files
Report Location:	C:\DFSReports
Report Name:	Health-Company Files-02Mar2019-1107
Servers to Use:	DC OFFICESERVER
Compute Backlog:	Yes
Reference Member:	DC
Send Files and Quota	

☒ Close the wizard on successful completion

< Previous

Create

Cancel

DFS Replication Health Report

Data collected on: 3/2/2019 at 11:10:57 AM (GMT-5:00)
Replication Group: Company Files (RAMLAN.CA)
Reference member:
Server scope: Selected 2 of 2 servers
DFS Replication bandwidth savings: 9.44% reduction (2.21 MB replicated instead of 2.44 MB)
Server health:

Servers with DFS Replication errors (0)

Servers with DFS Replication warnings (0)

DFS Replication Propagation Report

Report generated on: 3/2/2019 at 11:12:52 AM (GMT-5:00)
Replication group: Company Files
Replicated folder: Company Data
Number of tests reported: 1
Average replication time to all members:
Maximum replication time to all members:
Propagation test status:

Propagation tests complete (1)

Propagation tests with errors (0)

Topology Status



The topology for replication group Company Files is fully connected. Data can replicate throughout the topology.

OK

Event Viewer

File Action View Help

Event Viewer (Local)

- Custom Views
 - Server Roles
 - Administrative Events
- Windows Logs
 - Application
 - Security
 - Setup
 - System
 - Forwarded Events
- Applications and Services Logs
 - Active Directory Web Services
 - DFS Replication
 - Directory Service
 - DNS Server
 - Forefront Identity Manager Synchronization
 - Hardware Events
 - Internet Explorer
 - Key Management Service
 - Microsoft
 - Microsoft Azure AD Sync/Debug
 - Microsoft Azure AD Sync/Operational
 - Microsoft Office Alerts
 - OpenSSH
 - Operations Manager
 - Veeam Backup
 - Windows PowerShell
 - Subscriptions

DFS Replication Number of events: 1

Level	Date and Time	Source	Event ID	Task Category
Information	02-Mar-2019 9:12:35 AM	DFSRR	4112	None

Event 4112, DFSR

General Details

The DFS Replication service initialized the replicated folder at local path f:\User Data\Company Data. This member is the designated primary member for this replicated folder.

Additional Information:
Replicated Folder Name: Company Data
Replicated Folder ID: 8A182AEA-369B-405B-B2B9-B9CCDAC69178
Replication Group Name: Company Files
Replication Group ID: EF3CE46D-CD4E-4F68-844D-469FE9E27D76
Member ID: E922A601-09EE-4EDC-9C75-ED1C6859F2F7

We just have to create a GPO so the DFS drive mapping will do its work and users will see just DFS name and no other info as detailed below.

The screenshot shows the Group Policy Management console with the 'DFS Namespace Mapping' GPO selected. The left pane shows the hierarchy: Group Policy Management > Forest: RAMLAN.CA > Domains > RAMLAN.CA > DFS Namespace Mapping. The right pane shows the configuration details for this GPO.

DFS Namespace Mapping

Scope: Details Settings Delegation History

Name
NT AUTHORITY\Authenticated Users

Delegation
These groups and users have the specified permission for this GPO

Name	Allowed Permissions	Inherited
NT AUTHORITY\Authenticated Users	Read (from Security Filtering)	No
NT AUTHORITY\ENTERPRISE DOMAIN CONTROLLERS	Read	No
NT AUTHORITY\SYSTEM	Edit settings, delete, modify security	No
RAMLAN\Domain Admins	Edit settings, delete, modify security	No
RAMLAN\Enterprise Admins	Edit settings, delete, modify security	No

Computer Configuration (Enabled)
No settings defined.

User Configuration (Enabled)

Preferences

Windows Settings

Drive Maps

Drive Map (Drive: S)

S: (Order: 1)

General

Action	Update
Letter	S
Location	\\vramtan.ca\...
Reconnect	Enabled
Label as	DFS
Use first available	Disabled
Hide/Show this drive	No change
Hide/Show all drives	No change

The screenshot shows a Windows File Explorer window with the 'Network locations' section expanded. An orange arrow points to the 'DFS (S:)' entry.

Name	Type	Total Size	Free Space
Folders (6)			
Desktop	System Folder		
Documents	System Folder		
Downloads	System Folder		
Music	System Folder		
Pictures	System Folder		
Videos	System Folder		
Devices and drives (3)			
Floppy Disk Drive (A:)	Floppy Disk Drive		
Local Disk (C:)	Local Disk	249 GB	213 GB
DVD Drive (D:)	CD Drive		
Network locations (4)			
DFS (S:)	Network Drive	298 GB	275 GB
WD3 (\\DC) (X:)	Network Drive	931 GB	827 GB
WD2 (\\DC) (Y:)	Network Drive	1.81 TB	1.20 TB
WD1 (\\DC) (Z:)	Network Drive	4.54 TB	3.63 TB

So, we have completed all the configuration required for DFS setup.

Thanks

Ram Lan

2nd Mar 2019